



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

646.4002

Job Sheet 178090



Part No: 646.4002

Job Qty: 1 ea

Part Name: AS350 Wiper Deflector



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 5/26/18

Job Tracking No:

Due Date: 6/14/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV C1 IPP REV:A 12.12.23 NEW ISSUE DD VERF:JLM IPP REV:B 16.01.07 DWG REV.C DD
VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup	Run	Workcenter / Supplier	Lead Time	
					hrs	Hrs			
90	Start up Operation	1 Ea	6/14/18	6/14/18	0.00	0.00	Start Up Stores/Pkg-1		JUN 01 2018
110	Packaging	1 pcs	6/14/18	6/14/18	0.00	0.00	Packaging1-1		JUN 01 2018
120	QC	1 pcs	6/14/18	6/14/18	0.00	0.00	QC4		DAS
130	Packaging	1 pcs	6/14/18	6/14/18	0.00	0.00	Packaging3-1		28
135	DC	1 pcs	6/14/18	6/14/18	0.00	0.00	DC		3-89
140	QC21-FG	1 Ea	6/14/18	6/14/18	0.00	0.00	QC21		JUN 05 2018

Part Op 130 - Identify and pack for shipping as per PPP 646.4002 Location : FG102
Descriptions: 135 - Photocopy bluefile & type labels per PPP 646.4002

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
600.1012	Sealant PR1425B2 (#654 sem)	1 pcs (1 ea)	90-Start up Operation	
646.3410	LH Wiper Deflector	1 Ea (1 ea)	90-Start up Operation	
646.3411	RH Wiper Deflector	1 Ea (1 ea)	90-Start up Operation	
646.3814	Wiper Bracket	2 Ea (2 ea)	90-Start up Operation	
MS21042L3	Nut	6 Ea (6 ea)	90-Start up Operation	
MS24694-S53	Screw	2 Ea (2 ea)	90-Start up Operation	
MS27039-1-18	Screw	2 Ea (2 ea)	90-Start up Operation	
MS27039-1-19	Screw	2 Ea (2 ea)	90-Start up Operation	
NAS1149F0332P	Washer	16 Ea (16 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	600.1012	1	13	0
	646.3410	1	8	0
	646.3411	1	10	0
	646.3814	2	20	0
	MS21042L3	6	1,322	0
	MS24694-S53	2	229	0
	MS27039-1-18	2	1,321	0
	MS27039-1-19	2	550	0
	NAS1149F0332P	16	3,278	0

3594

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :	Step #:	QTY Effective :	MRB (QSI042) Approval
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Description Work Order Deviation	Disposition

Root Cause <table> <tr><td>Environment</td><td>☐</td><td>No Re-verification</td><td>☐</td></tr> <tr><td>Design</td><td>☐</td><td>Operator</td><td>☐</td></tr> <tr><td>Doc/Data</td><td>☐</td><td>Offset/Setup</td><td>☐</td></tr> <tr><td>Equip/Tooling</td><td>☐</td><td>Supplier</td><td>☐</td></tr> <tr><td>Handling/Pre</td><td>☐</td><td>Training</td><td>☐</td></tr> <tr><td>Material</td><td>☐</td><td>Use for Testing</td><td>☐</td></tr> <tr><td>Internal Transport</td><td>☐</td><td>Poor Information</td><td>☐</td></tr> <tr><td>Tribal Knowledge</td><td>☐</td><td>Rushing</td><td>☐</td></tr> <tr><td>LOA</td><td>☐</td><td>Product Improvement</td><td>☐</td></tr> <tr><td>Substation</td><td>☐</td><td>Process Improvement</td><td>☐</td></tr> <tr><td>Past Expiry Date</td><td>☐</td><td>Manufacturing Process</td><td>☐</td></tr> <tr><td>Misidentified</td><td>☐</td><td>Past Due</td><td>☐</td></tr> </table>		Environment	☐	No Re-verification	☐	Design	☐	Operator	☐	Doc/Data	☐	Offset/Setup	☐	Equip/Tooling	☐	Supplier	☐	Handling/Pre	☐	Training	☐	Material	☐	Use for Testing	☐	Internal Transport	☐	Poor Information	☐	Tribal Knowledge	☐	Rushing	☐	LOA	☐	Product Improvement	☐	Substation	☐	Process Improvement	☐	Past Expiry Date	☐	Manufacturing Process	☐	Misidentified	☐	Past Due	☐	FAULT CATEGORY <table> <tr><td>Pressure/Forced</td><td>☐</td><td>Temperature/Cure</td><td>☐</td><td>Power Loss/</td><td>☐</td></tr> <tr><td>Bending</td><td>☐</td><td>Set-up</td><td>☐</td><td>Folio/Progr</td><td>☐</td></tr> <tr><td>Centre Not Concentric</td><td>☐</td><td>BOM/Route</td><td>☐</td><td>Grain</td><td>☐</td></tr> <tr><td>Cracks</td><td>☐</td><td>Broken/Damage/Defect</td><td>☐</td><td>Weld</td><td>☐</td></tr> <tr><td>Crimp/Kink/Ripple/Wave</td><td>☐</td><td>Inspection Incomplete/Unqualified</td><td>☐</td><td>Wrong S</td><td>☐</td></tr> <tr><td>Cuffs</td><td>☐</td><td>Contamination</td><td>☐</td><td>Out of S</td><td>☐</td></tr> <tr><td>Crushing</td><td>☐</td><td>Countersink</td><td>☐</td><td>Off-set</td><td>☐</td></tr> <tr><td>Heat Treat</td><td>☐</td><td>Cut Too Short</td><td>☐</td><td>Mislabeled</td><td>☐</td></tr> <tr><td>Wave/Twist in Tube</td><td>☐</td><td>Instructions Incomplete/Unclear</td><td>☐</td><td>Fit/Function</td><td>☐</td></tr> <tr><td>Marks/Chatter</td><td>☐</td><td>Drill Holes</td><td>☐</td><td>Misaligned/off center</td><td>☐</td></tr> </table>		Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/	☐	Bending	☐	Set-up	☐	Folio/Progr	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong S	☐	Cuffs	☐	Contamination	☐	Out of S	☐	Crushing	☐	Countersink	☐	Off-set	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐
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DART
 AEROSPACE
 Container No: S077087
 Part: 646.4002
 Job No: 178090
 Serial No/Batch: S077087
 Revision:
 Inspector:
 Exp Date:
 Instructions: 06/01/2018
 Date: 06/07/18
 DART Aerospace Ltd.
 1270 Alameda Street
 Hawthorn, VIC 3176
 CANADA
 TEL: 1 613 892-5200
 Email: sales@dartaero.com
 www.dartaerospace.com

Part Specifications

Specifications could not be found.

Plex 5/28/18 7:21 AM Dart.lajeunesse.marie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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							Lead hand / Supervisor Approval Verification																		
							QC / QA Coordinator Approval																		
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Dart Aerospace Ltd.
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Tel (613) 632-5200

Container View (Active) - Master Unit Containers

Master Unit No	Container No	Part No	Part Name	From Container	Current Location	Quantity
003594	S077053	600.1012	Sealant PR1425B2 (#654 sem)	S075327	CCK017	1
003594	S077054	646.3410	LH Wiper Deflector	F125082-10	CCK010	1
003594	S077055	646.3411	RH Wiper Deflector	S032533	CCK010	1
003594	S077056	MS21042L3	Nut	S075328	ST303	6
003594	S077057	MS24694-S53	Screw	F113359	ST284	2
003594	S077058	MS27039-1-18	Screw	F124326	OVER006	2
003594	S077059	MS27039-1-19	Screw	S065263	ST280	2
003594	S077060	NAS1149F0332P	Washer	S068663	ST262	16

Note: Ad hoc query view of Part.dbo.Container where Container.Active = 1.

Plex 6/1/18 9:28 AM dart.quirion.sonia

646 3874 x2 S070535

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NOTES:

1. AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

2. INSTALL F/N 14 WITH F/N 52 & 53.

3. 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASER-CARR P/N 75935A651.

4. 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24916.

5. REUSE FASTENERS FROM F/N 1.

6. USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

7. AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

8. INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

9. NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

REFERENCE ONLY

UNINCORPORATED ECN(S)

05304

5	5	5	78	601.3875	SCREW	APCAL
1	1	1	77	646.9410	SHIM	APCAL
	4	4	76	601.2764	WASHER	APCAL
	2	2	75	601.2973	LOCKNUT	APCAL
	2	2	74	601.2988	SCREW	APCAL
	2	2	73	601.2943	LOCKNUT	APCAL
	2	2	72	601.3128	NUT	APCAL
	2	2	71	601.3209	LOCKNUT	APCAL
	4	4	70	601.2638	WASHER	APCAL
	2	2	69	601.2669	BOLT	APCAL
	2	2	68	601.3119	CLEVIS	APCAL
	2	2	67	601.3121	EYE BOLT	APCAL
	2	2	66	650.9201	EYE BRACKET ASSY	APCAL
REF	REF	REF	65	647.5701	GPS MOUNT KIT	APCAL
	2	2	64	601.3151	WASHER	APCAL
	2	2	63	601.2911	SCREW	APCAL
	24	24	62	601.2637	SCREW	APCAL
2	2	2	61	601.2763	BOLT	APCAL
	1	1	60	646.3913	SHIM	APCAL
	4	4	59	646.3912	SHIM	APCAL
	1	1	58	646.3911	SHIM	APCAL
	4	4	57	646.3910	SHIM	APCAL
	5	5	56	600.1013	PRIMER	APCAL
	8 FT	8 FT	55	600.0129	VHB TAPE	APCAL
	1	1	54	600.1012	SEALANT	APCAL
	1	1	53	600.0991	MAGNABOND 6098 PART B	APCAL
	1	1	52	600.0990	MAGNABOND 6098 PART A	APCAL
6	10	10	51	601.2826	BOLT	APCAL
	2	2	50	646.3814	WIPER BRACKET	APCAL
	49	49	49	601.2910	SCREW	APCAL
	2	2	48	601.1365	SCREW	APCAL
	2	2	47	646.3719	DOUBLER	APCAL
	2	2	46	646.3718	CUSTOM WASHER	APCAL
	1	1	45	646.3717	DOUBLER	APCAL
	22	22	44	601.1948	SCREW	APCAL
	2	2	43	601.1952	SCREW	APCAL
	4	4	42	601.1956	SCREW	APCAL
4006	4003	4004	4003	4002	4001	4001
FIN D #	PART #	DESCRIPTION	MATL	SPEC.		

REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED FOR EPP: 0205-1, 0279 & 0275	02/05/05	P. BRAVO
B	INCORPORATED FOR EPP: 0279 & 0471	11/04/05	P. BRAVO
C	INCORPORATED FOR EPP: 0205	05/07/05	P. BRAVO

		2	2	41	601.2829	SCREW	MS2047A554
		2	2	40	601.2831	RIVET	MS2047A554-7
		1	1	39	646.3716	GAUGE BRACKET	
		6	6	38	601.1953	SCREW	MS20709-1-12
		2	2	37	646.3715	STRUT DOUBLER	
	2	2	2	36	601.2824	BOLT	ANS-5A
12	36		36	35	601.2277	RIVET	CCF0448-3-01
6	18		18	34	600.0795	NUTPLATE	MS21047-3
3	3		3	33	601.2565	RIVET	MS2047A554-7
1	1		1	32	646.3813	STRUT BRACKET	
4	4		4	31	601.2822	BOLT	ANS-5A
2	2		2	30	646.3812	GUSSET BRACKET	
8	8		8	29	601.2564	RIVET	MS2047A554-4
1	1		1	28	646.3714	GUSSET	
	1		1	27	646.3610	FILLER	
3	3		3	26	601.2830	SCREW	MS2047A554
2	2		2	25	601.2825	BOLT	ANS-5A
1	1		1	24	646.3811	RADIUS BLOCK	
1	1		1	23	646.3712	CLIP	
1	1		1	22	646.3711	CLIP	
8	8		8	21	601.2832	RIVET	MS2047A554-8
14	14		14	20	601.2020	RIVET	CR0215-5-3
4	6	4	6	19	601.2823	BOLT	ANS-5A
1	1		1	18	601.2827	BOLT	ANS-13A
5	5		5	17	601.2912	SCREW	MS2047A554
1	1		1	16	646.3713	GUSSET	
1	1		1	15	646.3210	SUPPORT	
	1		1	14	646.3710	DOUBLER	
1	1		1	13	646.3110	CHANNEL	
14	10	8	53	6	601.1624	LOCKNUT	MS21047-3
16	32	18	120	16	601.1607	WASHER	MS21047-3
				10	646.3410	LH WIPER DEFLECTOR	
				9	646.3411	RH WIPER DEFLECTOR	
		2	2	8	647.7703	STRUT ASSY	
		2	2	7	647.0112	STRUT BRACKET	
1	1		1	6	646.3511	STRUT	
1	1		1	5	646.3510	STRUT	
2	2		2	4	646.3810	BRACKET	
		1	1	3	646.2910	DEFLECTOR	
1	1		1	2	646.3001	LOWER CUTTER ASSY	
		1	1	1	646.3301	UPPER CUTTER ASSY	
X					646.4006	LOWER CUTTER TIRE PROVISIONS	
					646.4005	LOWER CUTTER REAROVABLE PROVISIONS	
X					646.4004	FIXED PROVISIONS KIT	
					646.4003	CABLE CUTTERS ET VERMOREL KIT	
					646.4002	AS350 WIPER DEFLECTOR KIT	
					646.4001	AS350 CABLE CUTTERS KIT	
4006	4003	4004	4003	4002	4001	4001	4001
FIN D #	PART #	DESCRIPTION	MATL	SPEC.			

QTY

NEXT ASSY (S)

ORIGINAL DATE: 08-27-08
 PREPARED BY: J. HUR
 CHECKED BY: J. BRAVO
 DRAWING APPROVAL: J. BRAVO
 DATE: 08-27-08

APCAL INDUSTRIES, INC.
 3030 ENTERPRISE CT.
 SUITE A
 VISTA, CA 92081
 (760)-724-5300

AS350 CABLE CUTTERS KIT

SET: 646.4000
 B: 07MSA
 SCALE: NONE
 SHEET: 1 OF 5

6155

Linda Lacelle

Tue 2018-06-05 9:13 AM

to: Sonia Quirion <squirion@dartaero.com>; Shipping <shipping@dartaero.com>;

cc: Eric Downing <edowning@dartaero.com>;

Per Lewis – pls remove all adhesives for 3 x 646.4001, 3 x 646.4002

Merci

Eric- when I receive this, who do I give it to???